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SOME ACCOUNT OF THE PREVAILING EPIDEMIC IN THE NORTH-WEST, VARIOUSLY DESIGNATED, BUT USUALLY POPULARLY DENOMINATED "SPOTTED FEVER."

A Paper Read Before the Illinois State Medical Society, May, 1864.

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The peculiar severity and remarkable prevalence of the epidemic popularly called Spotted Fever, and the great anxiety which manifestly prevails, to glean from every quarter information with regard to its nature, and especially its treatment, must be my apology for trenching upon the limited time of the Society by a brief paper upon the subject.

The writer claims as large an experience in this form of disease as has probably fallen to the lot of any living member of the profession, as it has happened to have been his fortune to pass through as wide a spread and devastating epidemic of it,

as any with which medical history acquaints us.* Limited in range, compared with Asiatic Cholera, Yellow Fever, or the Plague, nevertheless, by its intensity and mortality, in the particular districts which it attacks, the writer does not hesitate in saying that it is vastly more to be dreaded in any community than either of the forms of disease mentioned.

In the present paper the writer must premise the regret that fire, which is no respecter of persons, destroying his residence and its contents, in the spring of 1851, spared not his memoranda of this terrible epidemic which devastated many parts of the State of Michigan during the years 1847, 8, and 9. A record of numerous cases, in their onset, progress, and *post. mortem*, was thus unfortunately destroyed. The impression left upon the writer's mind, deepened as it has been by frequent observations since that time, is too profound to depend upon any manuscript aid. Not less than five States of the North-West have recently been visited by this mortal disorder. A very little light is better than none in a dark place, and it is not hazarding too much to say that no man as yet so well understands the "Spotted Fever," as to be incommoded by the slightest additional information on the subject.

Of the Spotted Fever very little is found in the text-books, and our own observation is, that of the various monographs on the subject, but few, if any, reflect the personal experience of their writers.† Even the name is a subject of dispute—*stat nominis umbra.*

The diagnosis is comparatively clear to any one with even slight experience—unfortunately the reliable therapeutics puzzle and confound the most expert. Most remarkable as an epidemic, yet it often occurs sporadically, and in the latter case the diagnosis usually is—*congestion* of this, that, or the

*The number of cases personally observed by the writer, was not less than a thousand, and probably many more than that number.

† Several monographs have appeared on the subject, wherein the writers speak *boldly*, although they confess to have seen not more than a half dozen cases.

other organ, more frequently the brain. As though the term *congestion* explained anything!

In observing the phenomena presented, we may premise that they simulate the toxicological—we can scarcely resist the belief that they are caused by a specific *materies morbi*, which the popular opinion readily conjectures to be a contagious principle, yet by careful observation we become convinced that this *materies morbi* must have been generated within the system by the agency of external causes. The causes without—the poison generated within. According to the writer's observation, it is more likely to occur in winters with a variable temperature—where a few days of intense cold are rapidly followed by days of thaw, mud, and rain. Neither uniformly cold nor warm weather are so likely to engender it. But other influences unquestionably co-operate. It does not seem always confined to a particular season. We have seen cases in the wet basements of Chicago, and they have, according to the best authority, occurred in military camps in damp localities, irrespective of, or connected with "malarious" influences. Here and there, wherever the "grand army" of the Union has been dispersed, it has manifested itself, oftentimes vaguely denominated Cerebro-Spinal Meningitis, or "Congestive Fever," according as the reporter was, or was not, familiar with the peculiarities of the disease.

In its incursion it does not appear to select those debilitated by previous disease, in preference to the robust. It selects no particular age or sex, neither are any exempt. Nor does it seem to be influenced materially by localities—those upon the highlands, and those upon the lowlands—the rich and the poor are quite impartially seized. And yet there is a feature of causation which is generally to be noticed as common—the variable hygrometric and thermometric condition of the atmosphere. This is a point worthy of consideration in its physiological relations, and gives a glimpse of the real nature of the disease.

The Attack.—The modes of attack are various, and yet all coincide in reprosenting a potent influence upon the nervous system. More commonly this is manifested by distinct *rigor* gradually passing to general coldness, absence of pulse in the extremities, and coma, very like that of pernicious remittent, and this, it may be, without marked local symptoms. At other times *pain* is the prominent symptom—pain more frequently in the occipital or nuchal region, but very often in other parts of the head, in the shoulders, trunk, hips, or extremities. This pain is usually sharply circumscribed, but this is not invariably the case. It becomes more and more intense, until the patient grows delirious, apparently from its severity, and then ultimates in coma, after which, the disease takes the same course as when ushered in by a chill. Or it may speedily be replaced by the rigor. The *suddenness of the attack, and rapid progress to grave symptoms* are very characteristic. The delirium which ensues upon the pain, or which supervenes upon the coma, is of the most violent character, with incessant jactitation and often vociferous and incoherent cries.

The Eruption.—Sometimes at the very outset, but usually not until the lapse of several hours—from three to twenty-four—there occurs a peculiar discoloration or eruption upon the surface, but this is exceedingly variable in its form. Sometimes it consists in simple petechial points, and again of dark discolorations of large surfaces, like ecchymosis, or rather the subcutaneous extravasation of purpura. More frequently there is no elevation of the cutis, but occasionally there are elevations of the epidermis like bullæ, with thin, dark, sanious contents. Sometimes it approximates the mulberry rash of typhus, and again it is said by some of my correspondents to look like the eruption of measles. I have never seen it take the latter appearance. The form of the eruption, although from its frequency is derived the popular designation of the disease, is not diagnostic. Mainly the evidences presented by it are those of a diffluent disintegrated state of the blood. Yet I have fancied the prognosis was modified, as in many

eruptive diseases, by the brightness or lividity of the eruption. *The eruption or discoloration is not invariably present.*

Innervation.—Among the most remarkable symptoms may be mentioned persistent tonic contraction of the muscles of the back of the neck, sometimes deepening into opisthotones; convulsions, paralysis of the extremities, particularly of the arms, and also of the optic and auditory nerves—the auditory oftenest,—remarkable soreness of the surface and joints to touch or motion.

There may be intolerance of light and sound, but oftener the special nerves involved are paralyzed. While there is the most excruciating hyper-æsthesia of the general surface, the fingers may be placed on the cornea with no flinching by the patient. Rarely the muscles of articulation and deglutition are paralyzed. Hemiplegia is not infrequent, or the paralysis may be confined to a single extremity. Strabismus, unequal size of the pupils, twitching of the facial muscles, etc., etc., are incidental symptoms.

The Pulse, at the outset, is small, thready, tremulous, irregular, soft, and speedily lost at the wrist. On the occurrence of reaction, or remission, it increases in fullness and force. About always during the primary stage, it is slow, but during reactior it runs up to 120 or 150.

The Skin is, in most cases, dry as well as cold, but in perhaps twenty-five per cent. it is moist. In all instances, it is variable at different hours of the day.

The Tongue is more or less enlarged and flabby, with indentations of the teeth upon its edges. It is pale and moist, with a coating of a pale ash or white color, passing to yellow or brown, but it does not present distinctive symptoms.

Nausea and Vomiting are occasional, but not constant symptoms; the matters thrown up being the normal contents of the stomach, or, in bad cases, decomposed blood, bile, mucus, etc.

The Bowels are variable. Some cases are natural, in others, there is obstinate constipation, and in others still, severe

diarrhœa, with discharges of grumous and offensive matters.

The Respiration is ordinarily laborious and irregular, sighing and perhaps stertorous, or hissing through the clenched teeth; more frequent than normal while consciousness continues, but becoming slower with advancing coma.

The Urine is generally scanty, smoky, albuminous, depositing a plentiful sediment, intermixed with ropy mucus and disorganized blood corpuscles. In some instances I have known it abundant and of low specific gravity.

The Second Stage.—The first stage may terminate in death in a few hours, or, after an interval of from six to twenty-four hours, there may occur a marked remission of the symptoms —a very deceptive remission—leading both the physician and patient to believe the difficulty pretty much over. Supervening upon the remission rapidly, or it may be upon a gradual awakening from the comatose state, there will be intense febrile excitement, great heat of the surface, rapidity and strong tension of the pulse, arterial throbbings, flushed face, turgidity of the conjunctiva, with extreme thirst, etc. This is liable to be attended with the highest grade of delirium, and frantic muscular jactitation, requiring several attendants, perhaps, to keep the patient in bed.

The delirium may, after a while, merge again in coma, apparently from utter exhaustion, or it may gradually moderate in violence and pass into the low muttering character, with subsultus, etc., the patient supine, with the extremities fixed, and painful to touch or motion; or in some cases turned rather to the prone position, with, in either case, the posterior muscles of the neck fixed rigidly, drawing the head strongly backward. Occasionally it is drawn laterally backwards, but is always in a state of rigid immobility.

In this stage the bowels are inactive, and the urine either scanty or wholly retained. The skin is hot, but not infrequently reeking with an offensive perspiration. Irregular or partial sweats are common. Convulsions, paralysis, pain or other evidences of central nervous disorder are largely aggravated.

The patient may die in this stage, or

Later, may pass on with irregular febrile phenomena, into the low, lingering typhoid stage, stretching over even forty or sixty days, before the establishment of a tedious convalescence. The low fever which so often supervenes upon severe attacks of the Asiatic Cholera much resembles it.

From the outset there will be presented intermingled symptoms, according to the involvement of particular organs in secondary lesion. The lungs are especially liable to severe or even fatal disorder. So much so indeed as, by the gravity of its manifestations almost entirely to mask the original disease. Dr. Condie, in a note to the American edition of Watson's Practice, includes a description of this form under the head of Typhoid Pneumonia, but it is unnecessary to say that the disease described is but the one now under notice, with secondary pulmonary complication.

Ulceration of the throat, the writer has observed as a complication in several cases—the destruction of tissue proceeding to an alarming extent. Erysipelas is the most frequent and dangerous of complications. It is easily kindled upon the slightest abrasion of the surface, and often, without such a nidus, attacks the face and neck, extending to the scalp, or more rarely seizing the extremities. This erysipelatous affection is apt to be exceedingly destructive to the part attacked, giving rise to foul sloughing sores, rapidly wearing out the patient by exhaustion. Some of our friends who have observed this frequent concurrence of erysipelas, have been so struck by it as to be led to believe the disease essentially an erysipelatous inflammation of the Cerebro-Spinal tissues, as also of those organs secondarily involved.

The abdominal viscera sometimes experience the full force of the morbific influence, but in greater part are comparatively little disturbed. Epistaxis, hæmatorrhœa, hæmatemesis, and hæmaturia are occasionally present to a dangerous extent.

Sequela.—Among the sequela we note deafness, blindness, partial or complete paralysis of motion, tuberculosis, albumin-

uria. Albumen is about invariably present in the urine of the tardily convalescent, or ultimately fatal cases of long continuance. Marasmus in both children and adults, and phthisis in the latter, are especially common. The constitution seems broken down, and perhaps years elapse before the surviving patient recovers his original vigor.

Post Mortem.*—With regard to *post mortem* appearances, there has been much apparent discrepancy of description. The explanation of this discrepancy is found easily in the fact that death may result in any stage of the disease. It thus becomes quite difficult, at times, to discriminate the incidental complication from the primary original affection.

If the patient die in the first stage, within a few hours from the attack, there may be very few signs of local change. The blood will be found settling to dependent portions, and with a loose, gory, diffluent clot. There will be found stasis of blood in the capillaries of the Cerebro-Spinal meninges, particularly of the pia-mater and dura-mater, rarely of the arachnoid. The superficial vessels of the convolutions will be distended, and those upon the walls of the venticles likewise full, presenting here and there spots like ecchymosis, though more florid in hue. Sections of the cerebral substance will show a similar condition of the blood vessels, as manifested by large red points on cutting across them. The medulla oblongata, spinal meninges, and cord, at the upper part, will exhibit similar appearances. The stasis of semi-dissolved blood is so considerable that both the gray and white tissues gain a pinkish tinge.

More or less circumscribed softening is found, usually involving the cortical substance of the cerebrum, the inferior surface of the cerebellum, and the floor of the lateral ventricle. In fine, a lessening of the firmness and density of the whole mass is evident on careful inspection. Effusion of discolored serum into the cavities is present, now and then, to a large amount.

* The post mortem appearances here described, are those fully confirmed by the writer's own dissections.

If the case has run on to high reaction, all the results of inflammation may be present. In this case the arachnoid is apt to be thickened, and with loss of its transparency. In the exuded matters are found pus and lymph corpuscles, or the exuded lymph forms a quasi membrane, loose, creamy, and readily broken down, upon the surface, or along the course, of the large vessels. The greatest quantity is at the base of the brain, and always at the optic commissure. It is also stated to be found on the corpora quadrigemina, the medulla oblongata, and around the third pair of nerves, where they penetrate the arachnoid membrane. Wherever the exudation takes place it is likely to be stained by the dissolved hæmatin.

In the spinal region, the morbid changes affect mainly the meninges, the substance showing little modification of structure—the most observable being softening. The exudation, discoloration, and softening are most noticeable about the roots of the cervical nerves. The thoracic and abdominal lesions present nothing distinctive. Where the lungs become involved, there are the ordinary evidences of stasis of blood and effusion, or where the later stage is reached, the usual results of inflammation. The same remark may be made of the intestinal tube.

Here rests the case, so far as my own examinations have extended, and so far as those made by others, which have fallen under my notice, have been concerned. To my own mind the morbid anatomy thus far developed, is altogether unsatisfactory. The advances of modern Physiology indicate a still further exploration of the cadaver, which I confess not to have made, and am at this time only consoled in not having made, by the concurrent failure of other inquirers on this subject, and by the still more cogent reflection that probably if the examination had been made it would have proved scarcely more than negative.* But on this point hereafter.

*At the meeting of the State Society, before which this paper was read, it was stated that certain recent dissections showed commencing fatty degeneration of the kidneys. In so far this confirms the writer's present views.

It is proper to remark, that whilst in about every case there is on *post mortem* some visual evidence of local disease of the cerebro-spinal region, nevertheless, in very many, this evidence is very slight, and in some it is inappreciable. The disease is capable of killing the patient speedily or slowly, and yet leaving behind no trace of its footsteps. Here, as elsewhere, the facts teach that the immediate molecular changes, upon which life and death depend, are intrinsically beyond the sphere of our aided or unaided observation. We necessarily infer their existence, precisely as we infer the reactions of a chemical mixture, by observation of results, and of things which we can see, and handle, and weigh.

Necræmial Cases.—In common with many other potent influences which suddenly strike down the powers of life—the cause, or causes of this terrible disease may produce, at once, necræmial symptoms, so profound that particular manifestation of the special "proximate cause" will not take place. The diagnosis here is really not of much, if of any, importance. Malignant typhus, small pox, scarlatina, rubeola, diphtheria, Asiatic cholera, erysipelas, pernicious remittent, uræmia, etc., are severally capable of producing the same condition. In this case, an overwhelming cause acts especially upon the cerebro-spinal centre, and secondarily upon other organs. The blood from the beginning is poisoned, and scarce living, and death may ensue from this poisoning, or later, from the local changes in the brain and cord, or in some instances, from involvement of other vital organs. Probably all observable lesions are truly secondary.

Diagnosis.—The only forms of disease with which this is liable to be confounded are, pernicious remittent, ("congestive") fever and typhus. Nevertheless, as there is no limit to human absurdity, one medical journalist claims that all these noted cases are but malignant scarlatina! Such absurdity of speculation exhibits itself in too clear a light to need effort at controversy. Yet it may be observed that in the progress of

pernicious remittent and malignant typhus, cerebro-spinal changes often occur, which render the diagnosis impossible; and this may not be deemed unfortunate, because at the same time it is unnecessary. Since enlightened medical men have ceased to regard diseases as entities, and no longer rely upon routine treatment, the diagnosis of names has yielded place to the search for causes and conditions, and treatment has been placed upon a broader and more certain basis.

Those who carefully notice the peculiar disturbances of the nervous system and muscular apparatus in this affection, can not fail to see that they are exceedingly rare in the so-called congestive fever of malarious districts. There is no periodicity about it. It can not be merely a severer form of that fever for it occurs in districts indiscriminately, where that fever is known and where it is not. It occurs at a season of the year, mainly, when notoriously, pernicious remittent loses its virulence, and indeed, is scarcely ever present, save in cases which have been especially liable to attacks of periodical disease, and whose constitutions have been broken down by previous illness.

Briefly, the paralysis of special sensation and voluntary motion; the hyperæsthesia of the surface and joints, or more remarkably, of circumscribed localities; the opisthotonos and convulsions; the petechiæ and vibices; the absence of periodicity, notwithstanding marked remissions; the locality and times of occurrence; the sequela; these and many other particulars, to be seen by the seeing eye, distinguish the disease from "Congestive Fever," with no difficulty or uncertainty.

The influence of quinia is wonderfully diagnostic. In pernicious remittent it is prompt, powerful, and certain—it is *the* remedy, with all others ignored. In the disease under review, it is scarcely noticeable in effect, and wholly unreliable, nay, comparatively worthless as a remedy. The "*Congestive Fever*," bows beneath its potent influence at once—the "*Spotted Fever*" scorns its impression.

Practically, the *physiognomy* of the disease is as diverse as the lineaments of strangers.

Nearly the same features separate it from "maculated

typhus." It is not a severer form of typhus disease, because it is rarely developed under those known circumstances which develop the latter. The nervous manifestations at the outset are wholly diverse; the mode of attack and progress of the cases are dissimilar, save that in some cases a low fever follows the secondary lesions; but well marked, and indeed some of the severest, cases are arrested, and convalescence occurs, without any such secondary fever.

The eruption, or rather extravasation of dissolved blood beneath the skin, is wholly unlike the maculæ of typhus, or the roseolar spots of typhoid. Such extravasations do not constitute the peculiar eruption of typh disease. Typh fevers are the creation of *ochlesis*, of bad ventilation, filth, and improper food. This clearly depends on meteorological influences, entirely apart from the accumulation of human beings in crowded places; independent of decomposing organic matter; independent of confined air. It attacks equally all ages, from the infant to the veteran—the out-door laborer and the lady in the parlor.

Presenting some symptoms in common with typh diseases, its history and physiognomy are as diverse from them as "bilious remittent" from "yellow fever."

Its diagnosis only becomes difficult from them in that necræmial condition, before alluded to, when these and a vast number of other malignant diseases are merged in common manifestations, by the overwhelming nature of the causes producing them.

Prognosis.—The proportionate mortality in the early periods of this, as of other pestilential epidemics is something frightful to contemplate; but there always remains this well-established fact that under about any respectable, or even so-called active, treatment, the fatality steadily diminishes with time, and the later cases are quite controllable. Its primary mortality in proportion to the number seized, is unsurpassed even by Asiatic cholera.

Therapeutics.—It would be a happy circumstance if the

treatment were as satisfactorily determined as even the character of the disease. Unhappily this is not the case—but much can be done, and many lives thereby saved, which neglected would have been lost. This is a truth which charlatans and pretenders are ready to take advantage of, and all ears are speedily stunned by the praises of particular remedies and methods which they go around braying about. "Specifics" for it are as plentiful in every city, village, and hamlet as applicants for offices after a Presidential election—but, alas, they fail miserably in the trial.

Under the writer's own observation has come treatment which ought to make all classes of created things—from angels to jackasses—weep. We have seen men try to bring on a crisis—the *death-crisis*—which we have elsewhere exposed, by bloodletting. Others attempt the same thing by emetics and mercurial purges. Steaming is perhaps the most popular plan of producing exhaustion of the feeble remaining powers of life. We have seen long trains of wagons returning through *Michigan mud* from the hemlock woods, a score or more of miles away, laden with the precious branches, (Birnam's wood coming to Dunsinane,) greeted as Oriental pilgrims coming from Mecca.

I have known fifty grains of morphia given within a dozen hours to a boy of fifteen, to relieve him from the terrible pain and suffering, with no avail, save that death followed.

Incalculable quantities of brandy and quinine, of capsicum and carbonate of ammonia, have been poured into the stomachs of the comatose; and there is no measurement of the amount of turpentine and other irritants, which have been thrown up, *per rectum*. The surface has been parboiled, roasted, cauterized. What have we not seen done?

There is no limit to human credulity—there is no bound to human assumption. The most trivial remedies have been ushered into notice, and temporary repute, under the loosest of professional hypotheses—fortunate only in that they have replaced destructive methods.

Flimsy chemical analogies, mixed with apochryphal ferments, have floated sundry inert substances into use, which luckily convert the sin of commission into the less odious sin of omission. Satisfactory treatment remains to be discovered. There are no specifics—there are no antidotes. Yet experience points to some things which seem to have done something—perhaps, *post hoc ergo propter hoc*, after all.

And, *first*, we rank external stimulants—rubefacients and artificial heat. Whatever will powerfully stimulate the surface, especially along the spine and the extremities. This not from any vague idea of internal "pressure," or "congestion," to be overcome by "determining to the surface," but for promoting tissue changes in this most accessible of the excretory organs, and thus awakening energy of the circulation, and immediately excretion of effete matters, and renewal of blood. The rubefacient becomes thus a general stimulant. With capsicum and mustard, ammonia and terebinthinates, pungent oils and friction, the means are abundant enough, and the practitioner can take his choice. But, let it be observed, to be useful the action of the surface must be awakened, and not merely irritated. Persistency, and yet caution not to destroy the tissue, must be the cardinal points in view. Direct heat from its ultimate sedative impression, is a more questionable remedy. The hot water or vapor bath speedily exhausts—still, when the surface is dry and rigid, these may be employed for a short time only. The alcoholic vapor bath is better.

A potent stimulant is the application of ice for a few moments and then the alternation of hot epithems—this alternation to be frequently repeated. The intense local pain, so often present in the primary stage, may occasionally be controlled by full doses of morphia internally, but usually the amount required is so excessive as to prove dangerous of itself. Under these circumstances the hypodermic injection will be found of greater advantage. But from the puncture there is always danger of erysipelas. The same remark applies to

vesicants—primarily of excellent service, secondarily there is danger of sloughing sores. The slightest abrasion of the surface is to be looked upon with fear.

Internally stimulants and restoratives, boldly, but with due regard to their ultimate effect. Thus the alcoholic stimulant of whatever sort, when acting at all, is quite disposed to produce the sedative or anæsthetic effect, checking tissue metamorphosis, hence the disappointment so often experienced on its administration during the cold stage, or in necræmial cases. If given, it is better combined with arterial stimulants—capsicum, piperin, monarda, etc. Etherial preparations, ammonia, etc., answers well in some cases.

In the writer's experience the *Tincture of Cantharides* in full, and what to some would seem inordinate, doses has been found the most valuable of internal stimulants. Of this, (a *proved* preparation,) from twenty to forty drops may be given every hour until reaction ensues, or strangury supervenes. The occurrence of strangury, so far from being dreaded, is to be hailed as an omen of the most favorable import. It may be but a coincideuce, but it is fortunately an invariable one, that the patient in whom this symptom occurs, from this or any other cause, gets well. This interesting fact, observed more than fifty years ago in the history of this same disease, seems to us to let in a glimpse of light upon the therapeutics. It is not the strangury which cures, but the awakening of the nervous system and of the excretory energy, which this symptom incidentally manifests. The favorable result may be secured without the induction of strangury.

Where there is any appearance of erysipelas, or where there are any evidences of dissolution of the blood, as shown by the deep, livid shade of the spots, or by passive hæmorrhages, the *Muriated Tincture of Iron* should be simultaneously administered. Coinciding with the general effect of the Cantharides, it seems to especially prevent further destruction of the blood and to facilitate its repair. Besides it lessens the liability to injury of the kidneys, and moderates strangury. Ten, twenty,

or more, drops of the Tincture of Iron may be given with each dose of the Cantharides, and the mixture well diluted in some convenient vehicle.

Other stimulating diuretics which we have tried have thus far proved less useful in our experience, but we favor further experiment on the point.

When pain is dangerously intense, or convulsions occur, chloroform or ether may be carefully administered by inhalation; and we should very much like to try here, as we have not yet had an opportunity, the Protoxide of Nitrogen, or "laughing gas." Theoretically, and by analogy of its use in other cases, we are inclined to believe it would be found an invaluable remedy. Its energetic stimulating power would probably favor speedy reaction.

We have not noticed any especial advantage from quinia in the first stage, although we have given it in doses varying from a couple of grains to half a dram every hour. The stimulating effect of the small dose is inappreciable; the sedative and diaphoretic effect of the large dose is objectionable. But when the deceptive remission occurs, we have fancied some benefit was gained by several full doses, at intervals of one or two hours—the sedative effect seemed to lessen the severity of the subsequent exacerbation, although we have found that a hundred grains thus given, would not prevent its access.

Please observe, that while the writer thus ignores quinia as a curative agent of cardinal value, as some believe it, in pure cases of Spotted Fever, he is ready to admit the great probability of its superior efficacy in the management of cases modified by the so-called malarious influences. The same remark may be made with regard to the arsenical preparations and other "anti-periodics."

On the occurrence of the remission, or the conclusion of the first period, something appears to be gained by relieving the bowels with a moderately stimulating cathartic, particularly when the cold stage has left behind it decided engorgement of the portal system. By this means the ensuing exacerbation is

ameliorated, and the tendency to pass afterwards into a low form of fever is sensibly lessened. We usually, for this purpose, combine calomel with gamboge, rhubarb, and soap, which operates freely but not violently in six or eight hours. Beyond this or some milder cathartic, we have rarely found it useful to employ purgation. The patient can not be cured by attempts to turn him inside out with either emetics or cathartics.

If during the stage of excitement which now follows, the urine becomes tolerably free and charged with its solid constituents, the patient may be reckoned safe, but if it is suppressed the case is one of extreme danger.

The practitioner is apt to be deceived by the apparent excitement, and hence to resort to excessive anti-phlogistic measures, but this is a dangerous error. Collapse impends, almost momentarily, and it is indispensable to be on guard. Saline diuretics, very moderate doses of the usual sedatives, and perhaps anodynes may be used; but bleeding, vomiting, and purging are out of the question. Ablutions with cold water, or the tepid bath, or showering the head, we have found in this case even more useful than in the similar stage of remittent. *When in doubt*, our own experience teaches us to say, *stimulate* even here. At all events hold up the great powers of life by careful restoratives and abundant fluid nutriment. Destructive changes will thus be prevented; the liability to collapse lessened, and the tendency to tedious low fever with doubtful final result, abated.

But better do nothing than to do mischief. Discussion of the low fever and the various sequela occasionally met with, ensuing upon the attack, is not within our present purview. The treatment is comparatively clear and simple. Incidental local complications will modify each case, and the patience of even the most skilled practitioner will be severely taxed by the tedious prolongation. But the indications are so palpable and unmistakable that they need not command further notice in this place.

One or two remarks and this already too long extended paper will be brought to a close. The term Cerebro-Spinal Meningitis now generally accepted as designating "Spotted Fever" is objectionable, in that it conveys the idea that the disease is essentially an inflammation of the parts indicated, which is clearly not the fact.

The phenomena indicate the presence of a blood poison, prominently (but not invariably or exclusively,) affecting the cerebro-spinal meninges.

There is reason to believe that this blood-poison is generated within the body itself, by concurrence of external causes influencing especially the physiologically vicarious, yet collaborating organs, the skin and the kidneys.

There is reason to believe that elimination of that poison, and consequent cure, is to be sought among those agents which especially impress these great emunctories.

At all events, mere stimulants or antiphlogistics fail!

CLINICAL LECTURES ON DISEASES OF THE EYE.

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THE CORNEA.—CHRONIC INFLAMMATION.

Gentlemen:—Under the term, Chronic Keratitis, I shall include the following forms of disease: vascular corneitis, phlyctenular corneitis, inflammation of the substance of the cornea, corneitis punctata, and shall close with a few remarks upon the sequelæ of corneitis, ulcers and opacities of the cornea.

These divisions will embrace nearly every form of chronic corneal inflammation, which you will most often meet in practice. You must not infer, however, that each class in all cases

is characterized by well-marked, distinct symptoms. If you understand typical cases, you will readily comprehend such complicated cases as present many symptoms, common to several of the above-mentioned classes. I have termed these diseases chronic, since such is their usual character, although I should state that some of them occasionally terminate quite speedily in health. For the pathology of the different forms of Keratitis I must refer you to a former lecture.

1st. Vascular corneitis is usually a secondary disease, dependent upon long-continued irritation. This irritation may be produced by granulations upon the lids, rubbing over the cornea, by the presence of ulcers and phlyctænulæ of the cornea, by the action of foreign bodies, long retained under the lids, and by the constant exposure of the cornea to the air, as in ptosis and deficiencies of the lids from wounds, which prevent closure of the lids. One of the most favorable opportunities for studying the formation of vessels on the cornea is afforded by chronic conjunctivitis, especially when attended with granulations. At first the fine vessels are only observed, radiating over the limbus conjunctivæ. As the irritation continues, the inflammatory action invades the cells of the cornea, as shown by the presence of thin, nebulous patches upon the cornea. Accompanying this haziness the vessels are observed to advance beyond the limbus of the conjunctiva, upon the cornea. Ulcers of the cornea and phlyctænulæ very often render the surface of the cornea vascular; in these conditions, the vessels usually extend in small pencils from the periphery of the cornea to the points primarily diseased. Extreme vascularity of the cornea, with partially organized lymph, covering the cornea and somewhat resembling the granulations of a wound is termed pannus.

I shall say but little regarding the treatment of vascular corneitis. In a large proportion of cases, the vascularity disappears when the primary disease has been relieved.

2d. Phlyctænular corneitis is characterized by the presence of small inflamed elevated points, situated upon the cornea

or at the union of the cornea and sclerotic. At first they are minute greyish points, which soon enlarge and become red, with increased vascularity of the surrounding tissues. Neuralgic pains, photophobia, lachrymation are frequent symptoms, variable however in violence. In mild cases there are few phlyctænulæ, and the irritation is confined principally to the globe. But very often there is intense pain, and swelling of the lids, with photophobia, so intense, that great distress is produced by the smallest amount of light that can enter the eye, when the patient is in a darkened room with the eyes bandaged. To obtain a satisfactory examination of the cornea it is necessary to place the patient under the influence of chloroform. This disease, or different phases of it, is known also as pustular ophthalmia, herpes cornea, scrofulous ophthalmia, and is principally found among children who suffer from a scrofulous diathesis.

I can only call your attention to a few of the general principles in the therapeutics of this disease. In treating this affection it is of primary importance for you to remember that the local disease is usually but a manifestation of constitutional derangement. It will be your duty, therefore, to improve the general health by means of necessary hygienic regulations, and by the use of such remedies as will correct the diathesis, as cod liver oil, iron, iodine, and occasionally bichloride of mercury in minute doses. Not unfrequently, I have found quinine, as recommended by Mackenzie and others, of great benefit, even when the patient is aparently not suffering from malarial influence. It is of the utmost importance to prevent patients from bandaging the eyes, and from burying the face in pillows and cushions, which such patients almost invariably do, when there is much photophobia. This causes congestion and prevents recovery.

The use of stimulating astringents requires much care. Trial of these remedies should be made, increasing or diminishing their strength as the case is found to require. I usually apply the solution of nitrate of silver, if found necessary, as I

described in the treatment of acute conjunctivitis, commencing with the strength of ten grains to the ounce. A very useful remedy in many cases is the yellow oxide of mercury, united with the glycerole of starch. An account of this remedy can be found in the first volume of the *American Journal of Ophthalmology*. With the best of treatment the disease is very liable to continue for a long time, or, if relieved, to return on exposure to changes of temperature.

3d. Inflammations of the deeper portions of the cornea are not uncommon. The first symptoms are, a loss of lustre and transparency of the cornea, the cloudy appearance being modified by the color of the iris. The disease may affect the whole cornea, or be confined to a portion of it. In proportion to its severity there will be redness of the conjunctivæ, photophobia, pain, and inability to keep the eye open. The cornea, or the affected portions of it, may become so opaque as to conceal the iris and pupil. At any stage in its course the disease may assume an acute form and speedily result in abscess or ulcer, or the same result may occur by a slow process.

A particular form of this disease, often complicated with iritis, and accompanying a peculiar development of the teeth, their edges being notched, as symptoms of inherited syphilis, has been described by Mr. Hutchinson, in a monograph worthy your perusal.

The treatment must be conducted in accordance with the principles already explained in connection with the other forms of corneal disease. Attention to the general health and mild local stimulants cautiously used in the form of weak solutions of arg. nit., vin. opii, and powdered calomel blown into the eye, are the chief remedies. Where pain is a prominent symptom, morphia internally, and atropia locally, are demanded.

4th. Corneitis punctata, would perhaps scarcely merit mention as a distinct disease, were it not so regarded in most works on diseases of the eye. It is characterized by numbers of fine grey points upon the cornea. Upon a careful examination the

cornea is observed to be more or less covered with minute depressions as if made with the point of a needle. There is generally little pain or photophobia, but marked indistinctness of vision. The iris especially, and sometimes the choroid, retina and lens, are liable to suffer with the cornea. The disease almost invariably depends upon scrofulous or syphilitic diathesis, and is exceedingly obstinate. Constitutional treatment alone seems to be attended with benefit.

5th. Chronic ulcers of the cornea are chiefly observed in two forms, one accompanying granulated lids and vascular corneitis, and the other almost entirely without congestion of the eye. The first form often succeeds inflammation of the conjunctiva; the second, as a result of a minute point of corneal inflammation, precedes the vascular condition of the cornea and conjunctiva, which is simply a result, when it occurs, of the constant irritation produced by the presence of the ulcer. The first form will generally disappear if the primary disease is successfully treated. The second, like the other diseases above mentioned, require careful attention to the general health, and to a wise use of local stimulants. Although some of these ulcers are accompanied with scarcely any pain and congestion, they may resist all treatment for weeks. Preparations of lead should never be used locally in cases of ulcer of the cornea.

6th. I shall say but little regarding opacities of the cornea. You are aware that the greyish opaque portions of the cornea so often mentioned above, are manifestations of *existing* inflammation. The so-called opacities of the cornea are the result of past loss of the tissue; they are, in fact, scars, composed of newly-organized, but not transparent, tissue, thrown out to repair the loss. One of the chief diagnostic marks, distinguishing the two forms of opacity, is the aspect of their surfaces. In the first, the surface is usually dull and without lustre. In the second form the cornea has more or less recovered its brilliancy, though not its transparency. If the opacity is small and situated near the periphery of the cornea, vision

is little obstructed. But if it is in front of the pupil, the usefulness of the eye is, to a greater or less extent, impaired. These opacities, if deep, can seldom be removed. The most successful treatment in cases of superficial opacities is gentle stimulation, as obtained by weak solutions of arg. nit., zinc, copper, and by electricity. The removal of these opacities with the knife is rarely warrantable, except in cases where, from the improper use of plumbi acetas, the carbonate of lead has become incorporated in the substance of a superficial cicatrix. The operation for artificial pupil, in cases of central opacity, will be described hereafter. It is a fact worthy of notice, that patients with central nebulous opacities, can often see much better through a minute aperture in a thin plate of metal than with the naked eye, since the diffraction of light is in a measure overcome.

TÆNICIDE PROPERTIES OF PEPO,

With Report of a Case in which it was Successfully Used.

By E. INGALS, M. D.

Pepo—made officinal by the Pharmacopœia of 1860—has been known now for more than a century, to possess properties destructive to the tapeworm. The influence of the doctrine of signatures is said to have first suggested its use for this purpose. Inasmuch as there was observed to be a degree of resemblance between the pumpkin seed and the joints of which the body of the worm was made up, it was surmised that it would be the proper remedy to be used with a view of ridding the system of this troublesome parasite—and as fortune would have it, a doctrine that has its foundation only in ignorance and superstition, was in this instance the parent of truth. But though the pumpkin seed has been so long known as a remedy for tapeworm, yet it has never been extensively employed for this purpose, especially in this country. Its use

was introduced into the United States by Dr. J. A. Smith, of Boston, in 1850.

Since that time a considerable number of cases of its successful employment have been reported in our medical journals—such reports, coming mostly from physicians practicing in the Eastern portion of the Republic, and we have reason to think that the remedy has been used there more than at the West or South. The seeds contain a fixed oil, which may be obtained from them by expression, and to this is said to be due their medicinal virtue. Some cases of tapeworm have been successfully treated by the administration of this oil, a fluid ounce being given at one dose, to be followed in two hours by some active cathartic; but the oil is not known to possess any advantages over the seeds in substance.

The case in which we used this remedy occurred in a healthy boy, eleven years old, who, for two months before his parents brought him to me, had been voiding a number of joints of the worm daily, and his previous symptoms, as related to me, justify the conclusion that he had been afflicted with it more than a year, though no treatment had been resorted to, as they did not suspect the nature of the malady. The health of the child did not suffer, except that he was troubled somewhat at night by a cough of a spasmodic nature, and the parents noticed that this was always much worse when the child took milk for his supper, and likewise that prompt relief was sure to follow the taking of some bitter substance. I directed that ℥j of the pumpkin seeds should be freed from their shells, and then with ʒiv of sugar and ℥vj of water, to be made into an emulsion, and of this one-third was to be taken every hour, after fasting from supper until morning, and in one hour after the last dose ℥ss of castor oil. As this failed to act on the bowels, three hours after, ℥j more of the oil was given, which produced only a mild laxative effect, and this not until three hours after it was taken, bringing away only about thirty segments of the worm. This was on Sunday, and not wishing to keep the boy from his school, I post-

poned further treatment until the following Saturday, when I ordered the same amount of emulsion as before, directing that one-half of it be given in the morning, fasting, the remainder in half an hour; and one hour thereafter, ℥ xij of the liquor magnesia citratis. In a little more than two hours this occasioned active catharses; the first three dejections containing only disjointed segments of the worm, but the next brought the entire parasite, a tænia solium, twenty-two feet in length, but not dead.

I have reported this case, not as anything new, but hoping it may have some influence to induce others to test the virtues of this article. To obtain a medicine that shall be efficient for the cure of disease, at the same time that it is absolutely innocuous to the patient, is a desideratum greatly to be desired, but not always found. Of this remedy it is known that its use is neither unpleasant nor injurious, and it remains only to demonstrate its efficacy, and it is not unlikely that experience may prove it to be the best remedy for tapeworm, all things considered, that we possess.

The following are some of the advantages that the pepo may perhaps justly claim over other tænifuge remedies in common use, as the male fern, the bark of the pomegranate root, kousso, oil of turpentine, etc., 1st. To the patient it is entirely harmless and is not unpleasant to take. 2d. In this country it may always be easily obtained, and of a quality known to be good. 3d. To us it is indigenous, and other things being equal, such remedies should be preferred before those which are imported, especially in times like the present, when the whole nation should husband every resource, however trifling, for martial purposes.

Some recommend that the remedy be given in large quantities, and during a number of days, and without the adjuvant of a cathartic, for the emulsion itself when thus administered acts as a laxative; but we think an active cathartic should never be omitted, for its operation is capable of expelling a worm enfeebled by the effects of the medicine, but not to a

degree to insure its death if left in the alimentary canal. It may be proper to say, that among the people who have experience with domestic remedies, there is an opinion somewhat prevalent, that the pumpkin seed is an efficient remedy for the destruction of the ascarides lumbricoides, but I am not aware that this has been confirmed by the observation of the profession.

"EXCITO-SECRETORY."—SINGULAR MISAPPREHENSION.

Messrs. Editors :—I had supposed "the real intent and meaning „ of the phrase, *Excito-Secretory*, was, by this time, apprehended by the majority of the reading portion of the profession, but I have recently observed in an elaborate article, which need not for the present purpose be more directly indicated, a remarkable use of the term, which seems to demand a passing notice.

In the article alluded to, we are told, first, of "the excito-secretory system of nerves," and then, "the organic system," sometimes called the ganglion system, or great sympathetic nerve—the several phrases being used as synonymous.

The modern physiologist need not be told that this is a totally incorrect view, and we are led to believe the author used the terms inadvertently in the haste of composition. The author of the article alluded to, however, further confuses us by putting this "excito-secretory system" in *contrast* with the cerebro spinal system, which is wholly incorrect.

The mechanism of action, whether in the so-called cerebro-spinal, or the organic system, is identical, the resulting change depending, not on the nerve conductor, but upon the tissue reached. Histologically and physiologically, the cerebro-spinal system is as truly excito-secretory ir its action, as is the so-called organic system.

All nerves are conductors of the excito-secretory influence which is generated by molecular changes at one end of the conductor, and is manifested by molecular changes at the other end of that conductor.

There is no distinct excito-secretory system of nerves, for *all* nerves are capable of this conduction.

The terms, excito-motory, excito-secretory, excito-sensory, etc., are altogether conventional and arbitrary, tending to observe the true simplicity of the natural phenomena. J. A. A.

SELECTED.

SOME PRACTICAL OBSERVATIONS
ON SMALL POX AND VACCINATION,
At Rock Island Prison Barracks, Rock Island, Ills.

By R. M. LACKEY, A. A. Surg. U. S. A., M. D.

There are few subjects in the medical world that have claimed the attention and study of physicians more than small pox. Every medical writer for centuries past has treated of it, some devoting themselves exclusively to its study, the most valuable results attending their labors. It is, however, a source of regret that, nearly three-quarters of a century after the achievements of Jenner, small pox should still prevail, notwithstanding we have daily evidence of the power of vaccination, when properly employed, to arrest the ravages of this loathsome disease. From its earliest recorded history small pox seems to have prevailed extensively in large armies, the presence of which, in this country during the past three years, I think may be regarded as the exciting cause of its general prevalence, the contagion becoming more powerful by concentration, the predisposing cause being negligence in regard to vaccination, and the large number of persons who are consequently unprotected.

The appearance of the disease here was almost simultaneous with the first arrival of troops for garrison duty, but it did not begin to spread to an alarming extent until a fortnight or more after the arrival of the first lot of prisoners, which was about the 5th of December, 1863. From Jan. 1st, 1864, to about March 1st, it spread rapidly and almost entirely among the prisoners; some days as many as forty new cases occurred. As there had been no buildings erected for hospital purposes outside the prison yard some old dwelling-houses on the island were used as a Pest-Hospital, and men sick with small pox were crowded into these, where they suffered from exposure and insufficient ventilation, until better accommodations were provided. Although there are few who have never been vaccinated, yet the number of bad cases that occur is large; thus out of 558 cases admitted, there were but 44 that had never been vaccinated; yet out of this number 166 had confluent small pox. This may be accounted for by the fact that, of the 514 that had been vaccinated, there were 107 on whom the vaccination had not taken effect, and 59 in whom the matter used was evidently bad, as is shown by the character of the scars; and in 38 cases the variola and vaccine disease occurred simultaneously, making in all 204 that were unprotected. The whole number admitted to small pox hospitals to this date is 1165; of these 335 have died, or one in 3.17. Of confluent cases the deaths have been about 75 per cent. This would show a heavy mortality but for the condition of these men when attacked. Many of them are almost exhausted by other diseases, and a large number die during the first week of the eruption.

In the treatment of small pox several plans and remedies have been employed, and pronounced by some to have the power of aborting the disease. The Saracenia Purpurea, so highly recommended by Dr. Morris, of Halifax, N. S., and others, has been used here to some extent, but its employment has not been followed by the marvellous effects claimed for it; as soon, however, as another supply can be procured, we propose to give it a further trial, and hope to be able to report more favorably.

It has been asserted by some that vaccination, even after the variolous eruption has appeared, modifies the disease, and this course has been recommended; but observations here have not confirmed the truth of this statement. I have carefully observed thirty-eight cases in which the vaccine disease and small pox occurred simultaneously, and there was not a

case in which the vaccination seemed to be of any benefit; but in some cases the variolous modified the vaccine poison, making the vesicle smaller than usual, and in others the vaccine vesicle became contaminated with the variolous poison, and ran the same course as the small pox pustules. I see no object, therefore, in vaccinating after the variolous eruption has appeared.

The treatment which seems to be attended with the best results here is, to open the bowels freely at the onset of the disease, and, if there be much nausea, an emetic may be advisable to assist in freely unloading the stomach. Some of the saline laxatives are given to keep the bowels soluble during the course of the disease. For restlessness and wakefulness Dover's Powder in 10 gr. doses at bedtime. After the secondary fever has subsided it is necessary to use all the supporting means at our disposal—quinine, wine, iron, egg-nogg, and nourishing diet. For the throat affection that so frequently occurs from about the sixth to the eighth day, we have been using bromine by inhalation, and with very decidedly beneficial results. Frequently the tongue and throat swell enormously in a few hours, so that the patient can neither speak nor swallow, and suffocation seems imminent. In these cases we have seen the swelling diminish as rapidly as it came, from the use of this remedy. An inhaling apparatus may be extemporized by two tubes placed in the cork-stopper of a wide-mouthed bottle. From the fourteenth to the twenty-first day, pneumonia is most to be feared, and nearly all the cases in which it occurs prove fatal. Treatment is of but little avail, except to palliate as far as possible the sufferings until death relieves the victim. Erysipelas is very prevalent; nearly 25 per cent. of the whole number of patients are in the erysipelas ward. For this we find the local and constitutional use of iodine and bromine, with prompt support, the best treatment. Abscesses and sloughing are very common among anæmic subjects. I have seen the scrotum and penis nearly all slough away before death took place. For the abscesses, when they become extensive and the parts gangrenous, we have found the injection of a weak solution of iodine, after the pus is evacuated, very beneficial.

We have made use of a variety of external local applications—mainly for their soothing effects during the stages of maturition and decline. A very excellent soothing application is olive oil and kreosote, from ten to twenty drops of the latter to the ounce of oil. The oil softens the surface, and the

kreosote allays the itching, and, besides, its antiseptic properties are of some value. Another local remedy that we have used with great advantage, especially for the eyes, is glycerine. We usually take equal quantities of glycerine and water, and for the eyes the addition of a few grains of tannin to the ounce is beneficial. Where there are extreme dryness and soreness of the mouth, the glycerine mixture is an excellent application, not only in small pox but in other diseases.

Of the 558 cases of which I have taken notes, those between 15 and 20 bear the disease best; no bad cases occurring in those over 40 years of age recover; and no deaths have occurred in those who have a good vaccine mark.

Vaccination is the great disarmer of this terrible destroyer of human life; and the zeal manifested by some physicians in extending its blessings soon after its discovery is well worthy of imitation. As early as 1803 a voyage round the globe was undertaken for the sole purpose of extending vaccination. An account of it, translated from the *Madrid Gazette*, of October 14, 1806, begins as follows: "On Sunday, the 7th of last September, Dr. Francis X. de Balmis, honorary Surgeon of the Royal Chamber, had the honor of kissing the hand of his Majesty on his return from a voyage round the world, undertaken with the sole purpose of carrying to all the Spanish dominions beyond the sea, as well as to those of other nations, the inestimable blessing of vaccination." The greatest care was taken to have good virus, and everything necessary to insure success, as the account further states: "The persons attached to the expedition were several physicians with assistants, and 22 children who had not had the small pox, and were destined to preserve the valuable fluid by a successive vaccination from arm to arm on one after another in the course of the voyage."

After diffusing vaccination through Spanish America, and stablishing societies for its preservation, the Doctor determined to carry this "consolation of humanity," as he terms it, to Asia. A portion of the expedition was also sent to Peru, and it is said the vaccine disease was communicated to 50,000 persons without one unpleasant result. It is owing to the zeal and energetic labors of such men as Dr. Balmis that we have for a long time been comparatively free from those terrible epidemics of small pox that were once so common, and which threaten us again unless we carefully use the means to avert such calamities. The great evil is in the use of worthless or impure matter, as the following figures will prove:—

Of 558 cases of small pox 131 have been vaccinated once, 155 twice, 95 three times, 133 four times, and only 44 never. Of the 514 vaccinated, 285 have had the vaccine disease once, 103 twice, and 16 three times; 107 never. In 59 of the cases put down as having had the vaccine disease, it is evident that the matter employed was bad, as is shown by the sore or cicatrix on the arm, and from the fact that these men had unmodified small pox; thus making 166 cases in which vaccination was unsuccessful, either from worthless matter or carelessness in performing the operation. The virus furnished the Medical Department of the Army is very often worthless and harmful. Of 264 cases vaccinated only 147 were successful, and in these the failure I am confident, was not owing to the careless or ignorant manner of inserting the virus.

We are accountable for the failures of vaccination, for if good virus is used, and the operation performed by an expert, success will be the rule, and failure the exception. How then is vaccination to be made more effectual? First, it is evident that compulsory laws, bearing on the subject, must be enacted requiring children to be vaccinated at an early age, and no one should be considered protected unless pronounced so by some one authorized to vaccinate and competent to judge.

We must also devise means for obtaining and preserving genuine vaccine virus. We shall constantly meet with disappointments so long as we depend on that kept for sale in the shops, and by those who make it a business to traffic in the article. Let the medical societies in every city and county appoint as a board a certain number of their members, whose duty it shall be to always keep on hand, at whatever cost or labor, a perfectly reliable article of vaccine matter, from which source alone let physicians draw their supplies. In this way the traffic in this important article, and the impositions so often practiced by unprincipled and ignorant persons, will be at an end, and the blessings of vaccination generally enjoyed. Whatever errors or dereliction of duty there may be in regard to this matter in future, I trust there will be none that may be charged upon the medical profession.—*Am. Med. Times.*

CLINICAL LECTURES ON DIPHTHERIA.

By JOHN T. METCALFE, M. D.,
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LECTURE I.

I will occupy your time this morning, gentlemen, by some remarks on two cases that have lately presented themselves to us, at our Wednesday's clinic.

The first has the following history, which I now read to you from the case-book :—

Margaret Johnson, seven years old, a well developed child for her age, came before the class complaining of loss of power over the vocal organs, and difficulty of deglutition.

Her mother stated that she had been in good health until three months before coming to the college, when she observed Margaret to be troubled in swallowing her food. Not only was the act performed with difficuly and with occasional apparent pain, but the fluid portions of her food would return through the nostrils, when the pharyngeal muscles contracted. Now and then, in vomiting, the food would pass as much through the nose as through the mouth. The child's intellect was apparently in a normal condition. She readily understood everything that was said to her, but lacked the power of intelligible expression.

Soon after the symptoms above noted made their appearance, the patient complained of torpid bowels, of dysuria, and loss of power over the lower extremities. A few days later the arms and hands were likewise affected, and it was observ- that the sight became less distinct than usual. There was convergent strabismus of the left eye. Hearing unaffected. Lately she she has slept uneasily, and snores heavily and continuously when asleep. At present the partial paralysis above noted exists, but without marked increase. The skin is cool; the pulse quicker than natural; the head drops forward on the chest, and can not be raised by voluntary effort. On each side of the neck the lymphatic glands, especially about the angle of the jaw, are enlarged. Conformation of mouth and tongue normal; pharynx red, but without membrane. On questioning the mother closely she told us, you remember,

that Margaret had been ailing for some days before the symptoms above mentioned had manifested themselves. She had had pain in deglutition, as evinced by the necessity of drawing the head downwards and forwards, and making a sort of grimace as one with a sore throat would do. She had been fretful, restless, weak, and without her usual appetite.

Another case which came before us a few days ago, I find thus noticed in Mr. James Moore's notes:—

Timothy Quinlan, æt. 8 years, came to the Clinic for difficulty about the vocal apparatus.

He has never been a robust child, but has never had any serious illness previously. His parents are people of good constitution, without hereditary or other disease. About a month ago, his mother observed him to be troubled with sore throat, but he had no apparent fever nor loss of appetite. Under the angle of the jaws she noticed sensitive lumps, as large as a hickory nut, which lasted until a physician was called in, who gave him medicine. This, his mother thinks, cured the lump and sore throat. His deglutition was painful.

During the time referred to, lasting about a week, the boy was troubled by a harsh, dry, cough, with great hoarseness and indistinctness of the voice, so that it was difficult to understand him in ordinary conversation; now he speaks like a person with cleft palate, and, according to his mother, his intelligibility is diminishing from day to day. His throat, on examination, shows great redness of the fauces, with apparent thickening of the mucous membrane, especially of the right side. There is a pendulous condition of the soft palate, as though the muscles supporting it had lost their tone. There is double converging strabismus. His pulse is natural; skin warm and slightly moist. Anxious expression of countenance. On attempting to cough, he is unable to make the short, sharp, explosive expiration which should constitute the act. It is more like a harsh, *blowing* sound. His appetite is not bad; bowels regular; urine not examined.

These cases, gentlemen, are interesting, as illustrating some points in the pathology of a disease which has given great anxiety to the medical profession in this country as well as in Great Britain, during the last few years.

Diphtheria is not a new disease, as many have supposed—partly from the new name by which it is now known, and for which it was indebted to Mr. Farre, the Registrar-General of England, and partly because many physicians of large experience have only of late met with it as an epidemic malady.

To the excellent monograph of Dr. Edward Heanlam Greenhow, and to the admirable lectures of Prof. Alonzo Clark, published in last year's *Medical Times and Gazette*, I refer you for much interesting matter concerning its history.

Most of us who have practiced fifteen or twenty years, will easily remember sporadic cases of diphtheria. It is only as an epidemic that it has been comparatively unknown.

I shall, in the first place, speak to you of the peculiar sequelæ, so well illustrated in our two patients—I mean the diphtherial paralysis—and will then endeavor to anticipate answers to such letters as I am constantly receiving from our graduates who have commenced practice, and, having fallen in with the disease under consideration, desire to know what I consider the best general treatment.

"Nerve affections following diphtheria consist chiefly of impaired, perverted, or excessive sensibility, together with a more or less complete paralysis of the muscles of the fauces, pharynx, tongue, lips, extremities, trunk, and neck. The frequency of the occurrence of these symptoms in the several sets of muscles being nearly in accordance with the order in which they have been named, those of the fauces being the most frequent, and those of the neck least so." Doctor Greenhow, from whose article in the August (1863) number of the *Edinburgh Medical and Surgical Journal* I make the foregoing extract, does not mention paralysis of the eye muscles. This is by no means unfrequent. It existed in the two cases I have mentioned to you, but is not relatively so common as they might lead you to suppose. Perhaps in order of frequency we might place it after that of the trunk.

The supervention of diphtherial paralysis varies much with regard to the time of its access. In the cases which I have exhibited to you, there has appeared, in one, to be scarcely any appreciable interval between the primary and secondary affections. But this is not the general rule. As we ordinarily see it, the loss of muscular power has come on after apparent convalescence from diphtheria proper. In some instances, patients have been removed from the physician's immediate care to convalesce in some distant place, after which the paralytic symptoms have developed themselves—in one case as long as two months after the first attack.

The practical deduction to be drawn from these facts is to avoid pronouncing your patient cured until several weeks have elapsed after apparent recovery. It is a general rule that the probability and extent of paralysis bear a direct ratio to the

intensity with which the antecedent diphtheria has manifested itself; and this latter may serve also to measure the extent to which loss of muscular power will go.

Nevertheless, this is a rule subject to numerous exceptions, as the cases referred to in this lecture will show. Indeed, in one of them it would not have occurred to a physician's mind, before our knowledge of diphtheria was as accurate as it has become of late years, to make any connexion between the slight attack of sore-throat and the faucial and other paralysis. In the boy's case, the child was not even obliged to go to bed, and continued to enjoy a good appetite during his apparently trivial indisposition. In some of the worst cases of diphtheria I have ever seen, there was no subsequent paralysis of any sort.

Among the sequelæ most calculated to cause anxiety on the patient's part is an apparent loss of sight. This depends, not on any organic affection of the retina, but is a muscular affair —the ciliary muscle being the one involved in paralysis. Patients will occasionally be unable to read the print of an ordinary book, who will yet clearly distinguish objects across a hospital ward. The use of appropriate glasses will often restore the power of vision.

The history of our patients will show you that the paralytic troubles are generally progressive; that is, they may attack any one part of the muscular system, increase in intensity, and subsequently travel, without any seeming rule, to others. Usually gradual in its development, the paralysis may exceptionally be sudden.

It is not always regular in its march. Thus, in one of my late cases, I would find the child able to use her arms and legs fairly on one day, on the next there would be much less ability to do so. On the following visit she would have undergone great improvement. So it was with the speech and with deglutition. Later in the disease convalescence became steady and uninterrupted.

In the patients whom you have seen there was no mention made of anæsthesia. This is not an unfrequent phenomenon. We may have it manifested in any part of the body. Usually I have observed it most markedly in the faucial and palatine mucous membrane. It follows the course of the muscular paralysis, and requires no especial consideration.

The same may be said of hyperæsthesia. In the course of convalescence from the paralytic sequelæ, there will now and then be much complaint from excessive tenderness of the affected muscles on pressure being made.

In some cases the patient complains of the skin being so tight as to give the sensation of a swollen member. This is merely a perversion of sensibility, as inspection will show no change in size, nor to the observer's touch will there be anything abnormal. .

Among all varieties of diphtherial paralysis, the most interesting and the most dangerous is that in which the heart is the organ concerned. At times the pulse will grow more and more feeble and infrequent, until it finally ceases to be perceptible. In the case of a young lady to whom I was called, in New Jersey, death was due to almost instantaneous cessation of the heart's action. She was apparently in satisfactory convalescence, when on walking across the sitting-room, she suddenly dropped down and died. There was no previous organic disease of the heart, nor was there any brain lesion that would explain her abrupt death.—*Am. Med. Times.*

EDITORIAL AND MISCELLANOUS.

[The following interesting article was received too late to be placed among original communications.—EDS.]

Creosote and Arsenic in the Treatment of Skin Diseases.—From the well-known prevalence and obstinate character of some of the cutaneous diseases of the North-Western States, frequently resisting alike the efforts of well-directed medical skill, the never-failing unguents, lotions, and alterative secretion regulating secret remedies of the presumptuous charlatan, and much-lauded specific nostrums of the patent medicine vendor, I desire, through the medium of your widely-circulating journal, to commend to the consideration of the profession, after an experience of fifteen years, the above articles in the treatment of cutaneous diseases.

Having kept no record of cases I have no data but memory from which to write. I shall, therefore, make a brief general statement of the manner in which I have been in the habit of

using the above articles, and if the statements which I may make should prove of benefit to any one of the profession, or any of the afflicted, my end will have been attained.

I have, during the time specified, treated many cases of these diseases, of various grades, and have found more good resulting from the use of creosote than from all the other articles which I have used. The diseases in which I have found it more particularly useful, are impetigo and porrigo, and more especially of these, porrigo larvalis of Millan and Bateman, or impetigo larvalis of the French writers; this variety affecting young children during the period of dentition, is a source of much annoyance both to nurses and doctors, to say nothing of the more serious consequences which may occasionally result from its long continuance, where it seems to baffle all the skill of practitioner and nurse.

This variety (for a description see Wood's Prac. of Med.,) sometimes discharges fluid so copiously that scabs can not form; it is in such cases that I have found the creosote to act most advantageously, and also in the particular cases of eruption of the scalp. I have been much gratified with its results, indeed, it has given entire satisfaction in almost every case where I have been able to fairly test its virtues. The manner in which I have found it to act most beneficially is in form of an ointment, made according to the following formula:—

℞. Adeps preparata, ℥j; Creosote, gtt. xxv. Mix on a clean tile or plate until the two are thoroughly incorporated. Apply the ointment with a camel's hair pencil or the tip of the finger to the parts affected, twice a day, cleansing it well with fine soap and rain water once a day. If the ointment in this proportion should be too strong for the particular case to which it is applied, the inflammation will be increased; this should be an indication for a lessening of the creosote; if on the contrary it is too weak, the eruption will heal very slowly or not at all, which is an indication for greater strength. The constitutional symptoms, if any are present, and it frequently so occurs, should be met at the same time with appropriate

remedies, and it is here that I have found arsenic, in the form of Fowler's Solution, more valuable than all the other alteratives and entrophics which I have used.

This may be very safely administered to small children if the nurses are sufficiently warned of the care necessary to be taken, to give only the prescribed dose. The manner in which I have usually given it is as follows: To a child from 2 to 6 months old, gtt. j; from 6 to 18 months, gtt. iss; from 18 to 24 months, gtt. ij; two or three times in 24 hours, increasing with the age. I have been in the habit of continuing the use of the solution for a length of time varying from two to six months, which practice would seem to suggest itself as being beneficial on account of the well-known properties of arsenic in promoting nutrition. J. ELLES LYONS, M. D.

HUNTINGTON, Ind.

At a recent meeting of the Chicago Medical Society, Dr. Bartlett presented a means of using chloroform, when its application must of necessity be frequent or immediate, as in convulsions, hooping cough, neuralgia, labor, etc. He recommended it also as a matter of economy. By its use the chamber of the patient is kept comparatively free from the odor of chloroform, to many disagreeable or sickening.

Into a four-ounce gallipot, Dr. B. fits a cup-shaped sponge, retaining it in place by a transverse stay of wood. The anæsthetic being poured upon the sponge, the pot is placed inverted in a saucer containing a little water (or mercury). The tention of chloroform vapor not being great and it being sparingly soluble in water, but little is lost. The sponge may be successfully used hours after the pouring on of the anæsthetic.

Illinois State Homœopatic Association.—This city has recently been favored with a meeting of this organization, and of its transactions we find an elaborate report in the *Chicago Tribune*. From this, we learn that one of the fraternity, having treated a case a long time without any benefit to the patient,

and it seems without knowing what the disease was, hit upon the happy expedient of taking him before the assembled wisdom of the Association to find out, whereupon the report says: "Dr. Ludlam moved that the physicians ballot for a diagnosis. The result of the vote was as follows: psoriasis inveterata, 5; skin disease, 1; eczema rubra, 5; tetter, 1; rara avis in terra, 1; leprosy, 3; natrum muriaticum, 1; psora, 1; blank, 3; Persian leprosy, 2."

Could this question be determined by the weight, rather than the number, of opinions, we have no doubt the *savant* who diagnosed "skin disease," would have the question by an overwhelming preponderance. The President, Dr. Smith, said he had cured a case of phthisis pulmonalis, by administering a single dose of phosphorus. "The patient was the daughter of a homœopathic physician, and as there were no allopathic prejudices to be overcome, this might account for the rapidity of the cure." The points of interest omitted in the report of this case are,—the number and magnitude of the cavities that were present in the lungs, and what influence "allopathic prejudices" have on the action of phosphorus.

This nearly equals a case related by Hahnemann, in which powerful effects were produced on a patient, by smelling at a vial, in which a small pill, moistened with a medicine of the thirtieth attenuation, had been placed twenty years before.

Dr. Beebe introduced a resolution that is entirely inexplicable to us, which goes on to recite, "That while we revere and respect the chief Magistrate of the nation, and will ever prove loyal to the government, we deprecate and earnestly disapprove his compromise of character and self-respect in the utterance of an anecdote accredited to him." This resolution leads us to suspect that this meeting was not entirely a scientific one, but that under this cloak were concealed political objects, designed to overthrow the hopes of Mr. Lincoln for another term. It was clearly unjust to the President to censure him for an "anecdote accredited to him," without specifying what anecdote it was, and thereby give him an opportu-

nity either to deny it or justify himself to the parties who feel themselves so much aggrieved. Why did they not put the "anecdote" in the "belly of the resolution," as Mr. Benton would have said. We have heard but one story accredited to Mr. Lincoln, relating to homœopathists, and what that one can have to do with the "loyalty" of the members of the Association, we can not conceive. We write in a state of painful doubt and curiosity as to what the anecdote was.

Medical Gradyates for 1864.—Jefferson Medical College, 124; University of Pennsylvania, 101; Bellevue Hospital Medical College, 95; Rush Medical College, Chicago, 80; College of Physicians and Surgeons, N. Y., 72; Medical Department of University, N. Y., 59; Buffalo Medical College, 41; Starling Medical College, 32; Medical College of Ohio, 31. Cincinnati College of Medicine and Surgery, 30; Chicago Medical College, 17; Med. Department of University of Pacific, 7.

Some one has said, "Try all things; hold fast that which is good."—*Ohio Med. and Surg. Journal.*

To attribute one of the most familiar injunctions of Paul to "*some one*," reminds us of a preacher we used to hear in the days of the early settlement of Illinois, who in one of his sermons was urging the importance of giving to the young, proper instruction, and feeling in his own person the inconvenience growing out of a neglect of this duty, and wishing to enforce his views by the sanction of Scripture, did it thus:—"For, my friends, it is written in this inspired Book," placing his hand at the same time, with great emphasis, on the Bible, "Just as the twig is bent the tree is inclined."

Mortality Among Hospital Physicians.—Five members of the resident medical staff of Bellevue Hospital, city of New York, have paid the forfeit of their lives, and ten more have barely escaped death, since the 1st of May last, from fever, contracted in the discharge of their duties to the patients in that institution. The *Medical Times* charges the mischief to imperfect ventilation.

BOOK NOTICES AND REVIEWS.

MEDICAL DIAGNOSIS, WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE.—*A Guide to the Knowledge and Discrimination of Diseases. By J. M. DaCosta, M. D., Lecturer on Clinical Medicine, and Physician to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Pathological Society of Philadelphia; Corresponding Member of the New York Pathological Society, etc., etc. Illustrated with Engravings on Wood. Philadelphia. J. B. Lippincott & Co.* 1864.

In the preface the author states that his aim in writing this work has been to furnish advanced students and young graduates of medicines with a guide that might be of service to them in their endeavors to discriminate disease. And it will be readily conceded that every new fact which facilitates the discrimination of diseases, is an acquisition to medical science; that every appliance by which the signs or symptoms of disease are more distinctly pronounced; that every improvement in the arrangement or grouping of these signs and symptoms which render our diagnosis more ready and certain, are steps in the progress of improvement.

Great improvements have been made in the treatment of diseases within the last few years, and it will not be denied that the greater success of medical practice to-day, is due in no small degree, to a more accurate diagnosis, than it was possible to reach twenty years ago. The time has gone by when the physician can limit his means of diagnosis to the exercise of the special senses, vision, touch, etc.

Formerly we could go no further than these senses unassisted would carry us. But science has lent its aid, and furnished means by the help of which we can detect clearly what before we could not detect at all, or of what at best we only caught a glimpse. We now possess instruments by which we ascertain with accuracy the size of organs and their play. With thermometers we tell the heat of various parts of the body to a fraction of a degree. Specific-gravity bottles, and other measures devised for the purpose, inform us of the relative gravity of fluids. The microscope gives at a glance insight into mat-

ters far beyond anything the naked eye discloses. And chemistry, with its marvelous teachings, is rendering our knowledge of many morbid states admirably and amazingly complete. Then, too, the sagacity of modern times has taught us how to enlist the sense of hearing, and demonstrated how a disciplined ear may detect almost infallibly the workings of disease in cavities into which the eye can not penetrate. The effect of all these improved methods of study has been to give an immense impetus to clinical research, and in this manner to construct a solid groundwork of experience in striking contrast to the looseness and wild vagaries of former times. The advance in diagnosis thus attained forms indeed one of the most pleasing portions of medical history.

When, by means of the aided or unaided senses, the symptoms of the malady have been discovered, the next step toward a diagnosis is a proper appreciation of their significance and of their relation toward each other. Knowledge, and, above all, the exercise of the reasoning faculties, are now indispensable. The daily habit of investigating disease; an active pursuit of the anatomical lesions; chemistry, with its most searching analyses; the microscope, with all the wonders it reveals,—are all of little use, unless they have taught the necessity of placing the morbid signs they lay bare in connection with each other, and of considering in individual cases their respective value. Were it otherwise, the science of diagnosis would be simply a matter of memory. It is, however, this very analysis of symptoms, and the lengthy process of induction attending it, that makes medical diagnosis so difficult and so unattractive to the beginner.

* * * * * *

Now, to accomplish all this effectually, the physician has need of much and varied knowledge. He must be master of something more than of that information supplied to him at hand by semeiology. He must be an anatomist to pronounce on the seat of the malady. He must be a physiologist to appreciate the aberration of functions. Above all, he must be a pathologist in the full sense of the term. He must understand the antagonism between diseases; the frequency with which they coexist; the influence of remedial agents on them. He must be cognizant of their natural history and of the general laws governing them—for how else can he form an estimate of morbid action while it is in progress? Then, too, it is desirable that he should be aware of what are their current divisions and classifications.

The author has given us, in this book, a clinical classification of the manifold and ever-varying features of disease, which, while it could be produced only by great labor, enhances immensely its value as a guide in practice. The plan followed is sufficiently indicated in the following brief analysis of the table of contents, viz., After the introductory general considerations,

Chapter I. Treats of the Examination of Patients, and some symptoms of general import.
" II. " " Diseases of the Brain, Spinal Cord, and their Nerves.
" III. " " Diseases of the Upper Air Passages.
" IV. " " " " Chest.
" V. " " " " Mouth, Pharynx, and Œsophagus.
" VI. " " Diseases of the Abdomen.
" VII. " " the Urine, and Diseases of the Urinary Organs.
" VIII. " " Dropsy.
" IX. " " Diseases of the Blood.
" X. " " Rheumatism and Gout.
" XI. " " Fevers.
" XII. " " Diseases of the Skin.
" XIII. " " Poisons and Parasites.

We have no hesitation in saying that the author in producing this work has conferred a real benefit upon the profession, and that no medical library is complete which does not contain a copy.

A Treatise on Pharmacy, Designed as a Text-Book for Students, and as a Guide for Physicians and Pharmaceutists, Containing the Officinal and many Unofficinal Formulas, and numerous examples of Extemporaneous Prescriptions. By Edward Parish. Third Edition, Thoroughly revised and improved, with important additions. With two hundred and thirty illustrations.

The present edition of this standard and popular work is greatly improved upon the last, is more ample, and is brought fully up to the present status of the science of art and phar-

macy, and contains the working formulas for the old and new remedies recognized by the last edition of the Pharmacopœia, as well as many that are not officinal. From the title of the work, physicians might infer that it would not be of great value except in pharmacy, but this is an error, for many portions of it are as valuable to the physician in prescribing and administering medicine, as others are to the practical pharmaceutist. Especially will the practitioner be interested and instructed by the chapters on prescriptions, and on the art of selecting and combining medicines.

It contains, too, a large number of extemporaneous combinations of medicines, arranged according to their proper classifications. In short, it is a book that no person engaged in the practice of pharmacy or medicine, should fail to be familiar with. It is a work of more than 800 pages, and being issued by Blanchard & Lea, of Philadelphia, the execution of it is unexceptionable.

Death of Dr. Cheney.—At the meeting of the Chicago Medical Society, on Friday evening, May 6th, the following resolutions were adopted:

Resolved, That in the death of L. P. Cheney, our Medical Society has lost a highly esteemed member, our profession a laborious and conscientious practitioner, and our community a warm-hearted, useful and noble man.

Resolved, That while we deeply mourn our loss, we tender our heart-felt sympathies to the bereaved family and relatives and large circle of friends.

Resolved, That a copy of the foregoing be transmitted to the family of the deceased, also to the daily city papers, the *Chicago Medical Journal*, and the *Medical Examiner*, for publication, and that they be transcribed upon the records of this Society.

J. P. Ross, M. D.,
H. W. Jones, M. D., Orren Smith, M. D., } Committee.

John Redman Coxe, M. D.—Dr. Coxe was the oldest graduate of the Medical Department of the University of Pennsylvania, in which institution he was for many years a Professor.

He was born in Trenton, New Jersey, on the 16th of September, 1773. He was educated in Philadelphia, under the charge of his grandfather, Dr. John Redman, until his tenth year, when he went to England, where he remained at school until his seventeenth year, when he went to Edinburgh to complete his classical education; while there he attended a course of medical lectures at the University. He returned to America in 1790, and at once commenced the regular study of medicine with Dr. Benjamin Rush, with whom he remained until 1794, when he received his diploma. While with Dr. Rush he was actively engaged in practice during the severe visitation of the yellow fever in 1793, at which time three of his five fellow-students died of the fever. Immediately after graduating he went to London, and became a house-pupil at the London Hospital, and remained there nearly a year. He then went to Edinburgh, and attended a course of lectures at the University; thence to Paris, where he pursued his medical studies for three months. He then returned to London, where he spent several months in the hospitals. He returned to the United States, and settled in Philadelphia in the winter of 1796–7, when he at once entered upon the active practice of the profession for which he had been so carefully preparing himself by many years of study.

Dr. Coxe was appointed, by the Board of Health, physician to the port during the second visitation of the yellow fever, in 1798. He was for several years one of the physicians of the Pennsylvania Hospital, and also of the Philadelphia Dispensary. He was largely engaged in private practice, when, in 1809, he was elected Professor of Chemistry in the University of Pennsylvania, from which chair he was transferred, in 1818, to that of Materia Medica and Pharmacy, which he held until 1835. For many years he has been leading the quiet and retired life of a student. Dr. Coxe was one of the earliest introducers of vaccination into the United States, and was the first to introduce it into this city. His name has for more than half a century been a household word in connection with the Hive Syrup (*Syrupus Scillæ Compositus*, U. S. P.) which he invented, and which has proved such an inestimable blessing to thousands. He has passed away quietly, without disease, at the advanced age of ninety years and six months, having never been sick in all that time.—*Reporter.*

Death of Dr. Robert P. Thomas.—We observe with sorrow, the death of this gentleman noted in the Philadelphia *Med. and Surg. Reporter*. He was the editor of the last edition of *Ellis' Formulary*, a notice of which is in the present number of the *Press*. A singular mortality has attended this work, Ellis, its author, and Morton and Thomas, successively its editors, having passed away in the prime of life.—*San Francisco Med. Press.*

Death of Professor Ribes.—M. Ribes, professor of hygiene at the Faculty of Montpellier, has lately died at Perpignan, his native place, at the age of sixty-three. The deceased, published, three years ago, an important work entitled "Therapeutical Hygiene," and had previously enriched medical literature with valuable works, essays, and speeches.—*Lancet.*

City Mortality.—The following is the mortality of Chicago for six years past:

	1858.	'59.	'60.	'61.	'62.	'63.
January,	117	131	115	193	174	321
February,	126	115	128	135	197	294
March,	156	132	180	172	199	298
April,	116	155	131	126	187	300
May,	139	115	102	134	166	257
June,	139	112	155	131	156	219
July,	268	164	133	239	274	414
August,	377	325	308	262	304	341
September,	238	190	172	227	271	323
October,	102	160	149	120	246	258
November,	136	102	170	155	196	220
December,	135	125	158	195	203	230
Total,	2,049	1,826	2,056	2,069	2,575	3,475

Chronic Ulcers.—Dr. Skey says, "I have treated a large number of these affections, and with success. The more chronic the ulcer, the larger its size, the more aged the subject, the more remarkable is the influence of opium in effecting a cure. Let a case be selected for experiment, of some twenty years' duration, which has exhausted the patience of

various medical attendants, as well as the remedies employed by them for cure.

"Treat such a case of chronic ulcer, of the largest size, having a pale, flat, bloody base, a high mound lymped around it, covered by healthy integument, the sore pouring out large quantities of watery ichor, saturating every covering. Select such a case occurring in old age: give such a person ten to fifteen erops of tincture of opium night and morning, leaving the bowels alone, and observe the base of the sore in five or six days: it will exhibit a number of minute red points, which, daily increasing in number, will rise up in the form and identity of healthy granulations, and cover the entire surface of the ulcer; and at the same time the base is becoming elevated, the margin becomes depressed, and the process of cicatrization is commenced.

"No injury to the constitution attaches to the use of this remedy, its salutary action upon the ulcer is obtained solely through the healthy influence it exercises upon the constitution."—*London Lancet.*

Death From Chloroform, in San Francisco.—Mrs. ——, a native of California, of highly nervous temperament, went to a dentist's to have a tooth extracted. She had a great dread of the instruments, and while much excited, chloroform was administered, by holding a napkin above and near the nostrils. She had some difficulty in managing the respiration, and, after inhaling it imperfectly a short time, complained that she could not take it, and seized the hand of the operator, removing it from her face. Without using the chloroform any longer, her hands were held, and the tooth extracted without difficulty. Immediately after the withdrawal of the forceps from her mouth, her jaws were clenched and her head thrown back, by spasmodic contraction of the muscles. The breathing was arrested, the face grew livid, and death rapidly ensued. The immediate cause of death appears to have been apnœa, from the spasmodic closure of the glottis or larynx. The masseter, respiratory and spinal muscles, and also the flexors of the extremities, continued in a state of tonic spasm till relaxed by death. We are satisfied that there was no mismanagement of chloroform in this case—unless to use it at all be a mismanagement. There is quite as much reason to allege that it was not pushed far enough, as that it was pushed too far. Possibly a longer inhalation would have carried her safely beyond the range of spasm, and into the tranquil region of anæsthesia. There was no disease of the heart or other organs to discourage the use of the agent.—*San Francisco Med. Press.*

Berkshire Medical College.

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